



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,510	09/26/2003	Hirokazu Sugimoto	2003_1374A	8636
513	7590	09/24/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			NGUYEN, LINH M	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			2816	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,510

Applicant(s)

SUGIMOTO ET AL.

Examiner

Linh M. Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003 and 26 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5, 7 and 8 is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/30/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-9 are presented in the instant application according to the Applicants' filing on 09/26/2003 and communications filed on 12/30/2003.

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Specification

2. The specification is objected to because of lacking brief description of the drawing for Figure 17.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant Admitted Prior Art, Fig. 17.

Art Unit: 2816

With respect to claim 1, Applicant Admitted Prior Art, Fig. 17 discloses a synchronization circuit for receiving an input signal [SIN] and a clock [SCK] having a frequency equal a transfer rate of the input signal, and synchronizing the input signal with the clock, the circuit comprising a) a state detection circuit [6] for outputting a control signal [CTL] according to the temporal relationship between a transition point of the input signal and an edge of the clock; b) a delay selection circuit [4] for adding a delay (*depending on which delay circuit is being selected 1 or 2*) to the input signal on the basis of the control signal; and c) [3] a latch circuit for synchronizing the signal outputted from the delay selection circuit with the clock, and outputting the synchronized signal.

With respect to claim 6, Applicant Admitted Prior Art, Fig. 17 discloses that the delay selection circuit comprises a) a delay circuit [1,2] for adding a delay to the input signal; and b) a selection circuit [4] for selecting either the input signal or the output signal of the delay circuit on the basis of the control signal [CTL].

With respect to claim 9, Applicant Admitted Prior Art, Fig. 17 discloses that the state detection circuit [6] detects the state of the input signal on the basis of a preamble detection signal which supplied from the outside and indicates the positional relationship of data to be synchronized.

Allowable Subject Matter

5. Claims 2-5 and 7-8 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:
The closest prior art on record does not show or fairly suggest:

Art Unit: 2816

a) A synchronization circuit including a latch circuit for synchronizing an input signal with a clock outputted from a delay selection circuit, and outputting a synchronized signal, in combination with the remaining claimed limitations, as called for in claim 2;

b) A synchronization circuit including a state detection circuit for outputting control signals relating to respective input signals, according to the temporal relationship between transition points of the plural input signals, in combination with the remaining claimed limitations, as called for in claim 3; and

c) A synchronization circuit including a clock selection circuit for receiving clocks included in respective signal bundles, and selecting one of the inputted clocks, as a synchronization clock, on the basis of the result of a state detection performed between the respective signal bundles by a state detection circuit, in combination with the remaining claimed limitations, as called for in claim 4.

Citation of Relevant Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Takaki et al. (U.S. Patent No. 6,060,929) discloses a signal delay apparatus.

Prior art Oprescu (U.S. Patent No. 6,359,479) discloses synchronizing data transfers between two distinct clock domains.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (571) 272-1749.

The examiner can normally be reached on Alternate Fri, Monday - Thursday from 7:00 to 4:30.

Art Unit: 2816

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMN

LINH MY NGUYEN
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Linh My Nguyen', with a long horizontal flourish extending to the right.